

REMARKS

Reconsideration and allowance of this application are respectfully requested. Claims 1 and 14 have been amended. Support for the claim amendments is found in the specification at least in paragraph [20] on page 5. Further, claims 2, 5, 15 and 16 have been rewritten in independent form including all of the elements of their respective base claim. Claims 1-20 are pending in the application. The rejections are respectfully submitted to be obviated in view of the amendments and remarks presented herein.

Rejection of Claims 1, 14 and 15 (Case, Jr. et al.)

Claims 1, 14 and 15 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Case, Jr. et al. (U.S. Patent Number 5,825,350; hereinafter “Case”). The rejection is respectfully traversed.

Regarding amended independent claim 1, the claimed invention relates to an apparatus for enhancing the accuracy of a sensor signal output from a sensor by estimating and compensating for bias. The apparatus includes a low-pass filter, an operation determination unit, a bias estimating unit and a subtractor. The operation determination unit is operable to determine whether the sensor is not in operation. The bias estimating unit is operable to estimate bias included in the low frequency sensor signal output from the low-pass filter according to the output of the determination unit. The subtractor is operable to subtract the estimated bias from the low frequency sensor signal according to the output of the operation determination unit. The sensor is determined to not be in operation when a differentiated low frequency sensor signal is smaller than a first sized window and the low frequency sensor signal is smaller than a second sized window.

The claimed invention recites the determination of whether the sensor is not in operation. Furthermore, **the sensor is determined to not be in operation when a differentiated low frequency sensor signal is smaller than a first sized window and the low frequency sensor signal is smaller than a second sized window.** On the contrary, Case's pointing apparatus (100) is never detected to be not in operation, but rather its operational data is collected (angular acceleration) but nowhere does Case suggest that the pointing apparatus (100) is at any time not in operation, or that *a determination is made as to the sensor being not in operation when a differentiated low frequency sensor signal is smaller than a first sized window and the low frequency sensor signal is smaller than a second sized window*, as Applicants claim.

At least by virtue of the aforementioned differences, the invention defined by claim 1 is distinguished over Case. Independent claim 14 is a related method claim, and is distinguished over Case for analogous reasons. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(b) are respectfully requested.

Regarding amended claim 15, the determination as to whether or not the sensor is not in operation includes "differentiating the low frequency sensor signal; and ... determining that the sensor is not operating when an amplitude of the differentiated, low frequency signal is a first value or less, and an amplitude of the low frequency sensor signal is a second value or less." Applicants again respectfully argue that Case fails to anticipate or render obvious these claimed elements. Case's window comparator (1808) is only capable of ascertaining whether an angular acceleration calculated by the differentiator (1806) remains within a specified window, with no relation as to whether or not the sensor (100) is in operation. Case's window comparator (1808) determines whether the signal output from the differentiator (1806) is within a specified window,

however, the angular acceleration within the specified window is not taught or suggested to be an amplitude of a differentiated, low frequency sensor signal of “a first value of less.” Further, Case does not determine whether an amplitude of the signal output from the low pass filter (1802) “is a second value or less.” Additionally, Case does not make any determination of whether the sensor is not operating based on amplitude values of both a differentiated low frequency sensor signal and a low frequency sensor signal. At least by virtue of these differences, the claimed invention is distinguished over Case. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(b) are respectfully requested.

Rejection of Claims 1, 14 and 15 (Applicants’ Prior Art Figure 1)

Claims 1, 14 and 15 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Applicants’ prior art submitted in figure 1. Applicants respectfully maintain that the claimed invention is allowable over the cited prior art for the same reasons as discussed above.

Applicants’ submitted Figure 1 depicts a block diagram of a bias compensating apparatus as disclosed in Case (paragraph [04]). As discussed above, the bias compensating apparatus of the prior art fails to teach or suggest the claimed invention. Therefore, claims 1, 14 and 15 should also be allowable over prior art Figure 1. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(b) are respectfully requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
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Respectfully submitted,



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